

**AMENDMENTS TO THE CLAIMS**

Please cancel claims 153-178, 184, 185, 195-212, 232-234. Please amend Claims 179, 180, 182, 183, 186, 189, 190, 192, 194, 213, 224, 235, 238. Please add claims 241-253. This listing of claims replaces all previous listings.

**Claim Listing:**

153. - 178. **(Canceled)**

179. **(Currently Amended)** ~~The method of Claim 178~~ A method for enhancing angiogenesis in a mammal, comprising administering to a mammal in need thereof, in a therapeutically effective quantity, an agent which comprises an agonist of EphrinB2 or an agonist of EphB4, wherein the agent comprises a polypeptide selected from the group consisting of:

- i) a soluble polypeptide comprising an extracellular domain of EphrinB2; and
- ii) a soluble polypeptide comprising an antigenic portion of an extracellular domain of EphrinB2.

180. **(Currently Amended)** ~~The method of Claim 178~~ 179 wherein the agent comprises a soluble agonist, wherein said soluble agonist comprises an extracellular domain of EphrinB2 fused to an Fc domain of an antibody.

181. **(Previously Presented)** The method of Claim 180 wherein the soluble agonist is in clustered form.

182. **(Currently Amended)** ~~The method of Claim 178~~ 179 wherein the agent is administered locally to enhance vascularization.

183. **(Currently Amended)** ~~The method of Claim 178~~ 179 wherein the mammal is a human.

184. **(Canceled)**

185. **(Canceled)**

186. **(Currently Amended)** ~~The method of Claim 184~~ A method for inhibiting angiogenesis in a mammal, comprising administering to the mammal, in a therapeutically effective quantity, an agent which comprises an antagonist of EphrinB2 or an antagonist of EphB4, wherein the agent comprises an antibody selected from the group consisting of an antibody which binds to EphrinB2 and an antibody which binds to EphB4.

187. **(Previously Presented)** The method of Claim 186 wherein the antibody is a polyclonal antibody.

188. **(Previously Presented)** The method of Claim 186 wherein the antibody is a monoclonal antibody.

189. **(Currently Amended)** ~~The method of Claim 184~~ A method for inhibiting angiogenesis in a mammal, comprising administering to the mammal, in a therapeutically effective quantity, an agent which comprises an antagonist of EphrinB2 or an antagonist of EphB4, wherein the agent comprises an antagonist selected from the group consisting of:

- i) a soluble antagonist comprising an extracellular domain of EphrinB2 fused to an Fc domain of an antibody; and
- ii) a soluble antagonist comprising an extracellular domain of EphB4 fused to an Fc domain of an antibody.

190. **(Currently Amended)** ~~The method of Claim 184~~ A method for inhibiting angiogenesis in a mammal, comprising administering to the mammal, in a therapeutically effective quantity, an agent which comprises an antagonist of EphrinB2 or an antagonist of EphB4, wherein the agent comprises an antagonist selected from the group consisting of:

- i) a soluble antagonist comprising an extracellular domain of EphrinB2 fused to an Fc domain of a human IgG antibody; and
- ii) a soluble antagonist comprising an extracellular domain of EphB4 fused to an Fc domain of a human IgG antibody.

191. **(Previously Presented)** The method of Claim 189 wherein the antagonist is in non-clustered form.

192. **(Currently Amended)** The method of Claim ~~184~~ 186 wherein the agent is administered locally to a site of angiogenesis.

193. **(Previously Presented)** The method of Claim 192 wherein the site of angiogenesis is a tumor.

194. **(Currently Amended)** The method of Claim ~~184~~ 186 wherein the mammal is a human.

195. -212. **(Canceled)**.

213. **(Currently Amended)** A method for selectively delivering an agent to arteries in a mammal, comprising administering to the mammal a complex comprising:

a) the agent; and

b) a component which binds EphrinB2 selected from the group consisting of: an antibody which binds to EphrinB2, a soluble polypeptide comprising an extracellular domain of EphB4; and a soluble polypeptide comprising an antigenic portion of the extracellular domain of EphB4,

under conditions appropriate for the component of (b) to bind EphrinB2, whereby the agent is delivered to arteries.

214. **(Previously Presented)** The method of Claim 213 wherein the agent is an anti-angiogenic agent.

215. **(Previously Presented)** The method of Claim 213 wherein the agent is an angiogenic agent.

216. **(Previously Presented)** The method of Claim 213 wherein the agent is selected from the group consisting of a drug, a diagnostic agent, an environmental factor and a dietary factor.

217. **(Previously Presented)** The method of Claim 213 wherein the agent is an anti-plaque agent.

218. **(Previously Presented)** The method of Claim 213 wherein the agent is selected from the group consisting of a growth factor and a cytokine.

219. **(Previously Presented)** The method of Claim 213 wherein the agent comprises a radioactive isotope.

220. **(Previously Presented)** The method of Claim 213 wherein the agent is a diagnostic agent.

221. **(Previously Presented)** The method of Claim 220 wherein the diagnostic agent comprises a label selected from the group consisting of a radioactive label, a fluorescent label, a colorimetric label, an enzyme label, an antigenic label, an epitopic label and a biotin label.

222. **(Previously Presented)** The method of Claim 213 wherein the agent is a histological stain.

223. **(Previously Presented)** The method of Claim 213 wherein the component in b) is an antibody which binds to EphrinB2.

224. **(Currently Amended)** The method of Claim 213 wherein the component in (b) is selected from the group consisting of:

i)——a soluble polypeptide comprising the extracellular domain of EphB4; and

ii)——~~a soluble polypeptide comprising an antigenic portion of the extracellular domain of EphB4.~~

225. **(Previously Presented)** The method of Claim 213 wherein the agent is an anti-angiogenic agent and the component of (b) is an antibody which binds to EphrinB2.

226. **(Previously Presented)** The method of Claim 213 wherein the agent is an angiogenic agent and the component of (b) is an antibody which binds to EphrinB2.

227. **(Previously Presented)** The method of Claim 213 wherein the complex is a fusion protein.

228. **(Previously Presented)** The method of Claim 227 wherein the fusion protein comprises a moiety selected from the group consisting of alkaline phosphatase, blue fluorescent protein, green fluorescent protein and  $\beta$ -galactosidase.
229. **(Previously Presented)** The method of Claim 213 wherein the mammal is a transgenic mammal.
230. **(Previously Presented)** The method of Claim 229 wherein the transgenic mammal is a mouse.
231. **(Previously Presented)** The method of Claim 213 wherein the mammal is a human.
232. – 234. **(Canceled)**.
235. **(Currently Amended)** A method for enhancing development of blood vessels in a mammal in need thereof, comprising administering to the mammal a soluble polypeptide comprising ~~the~~ an extracellular domain of EphrinB2.
236. **(Previously Presented)** The method of Claim 235 wherein the soluble polypeptide comprising the extracellular domain of EphrinB2 is fused to an Fc domain of an antibody.
237. **(Previously Presented)** The method of Claim 235 wherein the mammal is a human.
238. **(Currently Amended)** A method for inhibiting development of blood vessels in a mammal in need thereof, comprising administering to the mammal a soluble polypeptide comprising ~~the~~ an extracellular domain of EphB4.
239. **(Previously Presented)** The method of Claim 238 wherein the soluble polypeptide comprising the extracellular domain of EphB4 is fused to an Fc domain of an antibody.
240. **(Previously Presented)** The method of Claim 238 wherein the mammal is a human.
241. **(New)** The method of Claim 235 wherein the soluble polypeptide is administered locally.
242. **(New)** The method of Claim 238 wherein the soluble polypeptide is administered locally.

243. **(New)** The method of claim 242, wherein the soluble polypeptide is administered to a tumor.

244. **(New)** The method of Claim 238 wherein the site of angiogenesis is a tumor.

245. **(New)** The method of claim 236, wherein the Fc domain of an antibody is an Fc domain of a human IgG antibody.

246. **(New)** The method of claim 239, wherein the Fc domain of an antibody is an Fc domain of a human IgG antibody.

247. **(New)** A method for inhibiting angiogenesis in a mammal in need thereof, comprising administering to the mammal, in a therapeutically effective quantity, an antibody that binds to EphB4 or EphrinB2.

248. **(New)** The method of claim 247, wherein the antibody is a monoclonal antibody.

249. **(New)** The method of Claim 247 wherein the antibody is a polyclonal antibody.

250. **(New)** The method of claim 247, wherein the antibody interferes with the specific binding of EphrinB2 to EphB4.

251. **(New)** The method of Claim 247 wherein the antibody is administered locally to inhibit vascularization.

252. **(New)** The method of Claim 247 wherein the site of angiogenesis is a tumor.

253. **(New)** The method of Claim 247 wherein the mammal is a human.